

Amendments to the Claims

1. (Currently Amended) A method comprising:

processing run level information in a multi-layer two-layer representation for a sequence of values, wherein the processing includes processing plural first-layer runs as one or more second-layer runs and one or more second-layer levels; and

outputting a result.

2. (Currently Amended) A computer-readable storage medium storing computer-executable instructions for causing a video encoder programmed thereby to perform the method of claim 1.

3. (Currently Amended) A computer-readable storage medium storing computer-executable instructions for causing a video decoder programmed thereby to perform the method of claim 1.

4. (Original) The method of claim 1 wherein the values are frequency transform coefficients.

5. (Original) The method of claim 4 wherein the sequence is zigzag scanned using a scan pattern selected from among plural available scan patterns for variable-size blocks.

6. (Canceled)

7. (Currently Amended) The method of claim [[6]] 1 wherein each of the plural first-layer runs represents a run of zero or more zero values in the sequence.

8. (Currently Amended) The method of claim [[6]] 1 wherein each of the one or more second-layer runs represents a run of zero or more insignificant-value first-layer runs.

9. (Currently Amended) The method of claim [[6]] 1 wherein each of the one or more second-layer levels represents a single significant-value first-layer run.

10. (Currently Amended) The method of claim [[6]] 1 further including processing at least some of the one or more second-layer runs using a separate Huffman code per second-layer run.

11. (Currently Amended) The method of claim [[6]] 1 further including processing at least some of the one or more second-layer levels using a separate Huffman code per second-layer level.

12. (Currently Amended) The method of claim [[6]] 1 further including processing a count of significant second-layer runs, wherein the count at least in part enables reduction in code table size and/or early termination of decoding.

13. (Canceled)

14. (Currently Amended) The method of claim [[13]] 68 wherein each of the plural first-layer levels represents a non-zero value in the sequence.

15. (Currently Amended) The method of claim [[13]] 68 wherein each of the one or more second-layer runs represents a run of zero or more insignificant-value first-layer levels.

16. (Currently Amended) The method of claim [[13]] 68 wherein each of the one or more second-layer levels represents a single significant-value first-layer level.

17. (Currently Amended) The method of claim [[13]] 68 further including processing at least some of the one or more second-layer runs using a separate Huffman code per second-layer run.

18. (Currently Amended) The method of claim [[13]] 68 further including processing at least some of the one or more second-layer levels using a separate Huffman code per second-layer level.

19. (Currently Amended) The method of claim [[13]] 68 further including processing a count of significant second-layer levels, wherein the count at least in part enables reduction in code table size and/or early termination of decoding.

20. (Original) The method of claim 1 wherein the processing includes using embedded Huffman code tables for the information in the multi-level representation, and wherein the embedded Huffman code tables are shared for plural different variable-size blocks.

21. (Original) The method of claim 1 wherein the processing includes using zoned Huffman code tables for the information in the multi-level representation.

22. (Original) In a video processing tool, a method comprising:
for each of plural sequences of frequency transform coefficients,
processing run level information for the sequence in a two-layer representation,
including processing one or more first-layer runs as one or more second-layer runs and one or more second-layer levels; and
outputting a result.

23. (Currently Amended) A ~~computer-readable storage~~ medium storing computer-executable instructions for causing a video encoder programmed thereby to perform the method of claim 22.

24. (Currently Amended) A ~~computer-readable storage~~ medium storing computer-executable instructions for causing a video decoder programmed thereby to perform the method of claim 22.

25. (Original) The method of claim 22 wherein each of the one or more first-layer runs represents a run of zero or more zero values in the sequence.

26. (Original) The method of claim 22 wherein each of the one or more second-layer runs represents a run of zero or more zero-value first-layer runs.

27. (Original) The method of claim 22 wherein each of the one or more second-layer levels represents a single non-zero value first-layer run.

28. (Original) In a video processing tool, a method comprising:
for each of plural sequences of frequency transform coefficients,
processing run level information for the sequence in a two-layer representation,
including processing one or more first-layer levels as one or more second-layer runs and one or more second-layer levels; and
outputting a result.

29. (Currently Amended) A ~~computer-readable storage~~ medium storing computer-executable instructions for causing a video encoder programmed thereby to perform the method of claim 28.

30. (Currently Amended) A ~~computer-readable storage~~ medium storing computer-executable instructions for causing a video decoder programmed thereby to perform the method of claim 28.

31. (Original) The method of claim 28 wherein each of the one or more first-layer levels represents a non-zero value in the sequence.

32. (Original) The method of claim 28 wherein each of the one or more second-layer runs represents a run of zero or more first-layer levels having an absolute value of one.

33. (Original) The method of claim 28 wherein each of the one or more second-layer levels represents a single first-layer level having an absolute value of two or more.

34.-67. (Canceled)

68. (New) A method comprising:

processing run level information in a two-layer representation for a sequence of values, wherein the processing includes processing plural first-layer levels as one or more second-layer runs and one or more second-layer levels; and
outputting a result.

69. (New) The method of claim 1 wherein the processing the run level information comprises encoding the run level information, and wherein the outputting the result comprises signaling the encoded run level information as part of a bit stream.

70. (New) The method of claim 1 wherein the processing the run level information comprises decoding the run level information, and wherein the outputting the result comprises outputting for display one or more video pictures reconstructed based at least in part upon the decoded run level information.

71. (New) The method of claim 22 wherein the processing the run level information comprises encoding the run level information, and wherein the outputting the result comprises signaling the encoded run level information as part of a bit stream.

72. (New) The method of claim 22 wherein the processing the run level information comprises decoding the run level information, and wherein the outputting the result comprises outputting for display one or more video pictures reconstructed based at least in part upon the decoded run level information.

73. (New) The method of claim 28 wherein the processing the run level information comprises encoding the run level information, and wherein the outputting the result comprises signaling the encoded run level information as part of a bit stream.

74. (New) The method of claim 28 wherein the processing the run level information comprises decoding the run level information, and wherein the outputting the result comprises outputting for display one or more video pictures reconstructed based at least in part upon the decoded run level information.

75. (New) The method of claim 68 wherein the processing the run level information comprises encoding the run level information, and wherein the outputting the result comprises signaling the encoded run level information as part of a bit stream.

76. (New) The method of claim 68 wherein the processing the run level information comprises decoding the run level information, and wherein the outputting the result comprises outputting for display one or more video pictures reconstructed based at least in part upon the decoded run level information.